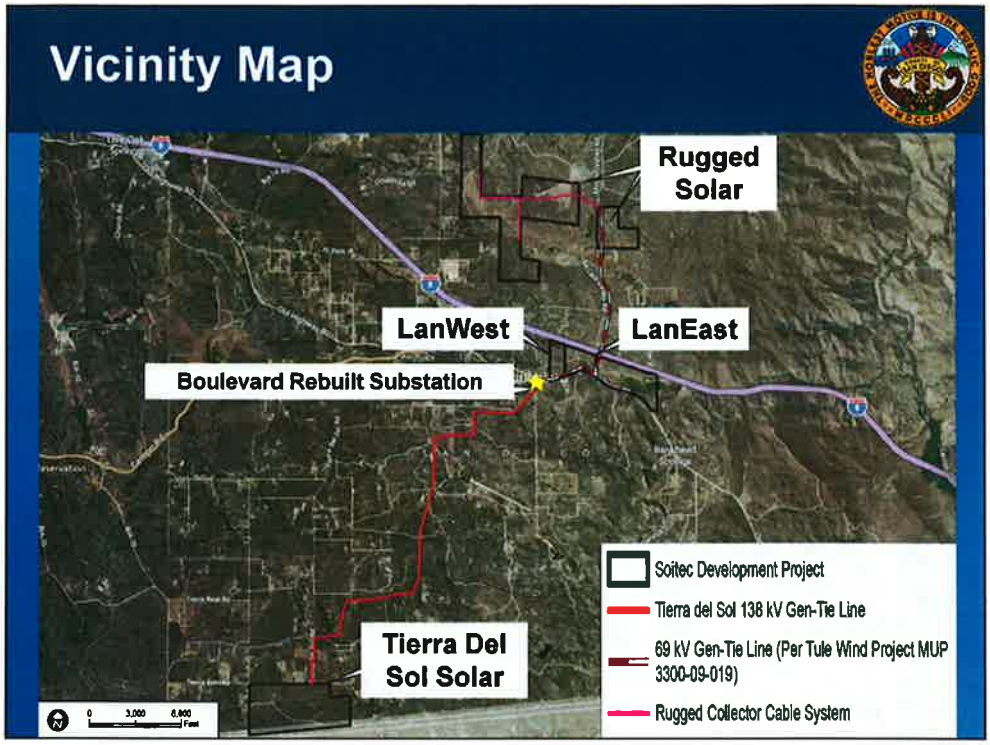
Good morning Chairman Horn and Supervisors …

The Soitec Solar Development consists of two large scale solar facilities that require the approval of an agricultural disestablishment, rezone, two major use permits, and the certification of an EIR. The project would also include two fire agreements and a franchise agreement. The proposal for your consideration today will ultimately generate 140 megawatts which could power 46,000 homes and is a product of extensive public outreach, thorough analysis, and negotiation.

Since we are describing two projects and their analysis, the presentation will run approximately 30 minutes. During this time, staff will summarize the reasons for a recommendation of approval and the presentation will conclude with a brief statement from County Planning Commissioner, Chairman Norby.

Letters commenting on this project have been received since preparation of staff's hearing report to the Board; however, these letters do not raise any new CEQA issues requiring additional analysis or recirculation of the EIR and do not change the Department's recommendation on this project.

The Soitec Solar Development Project first analyzed four projects, all of which are located...



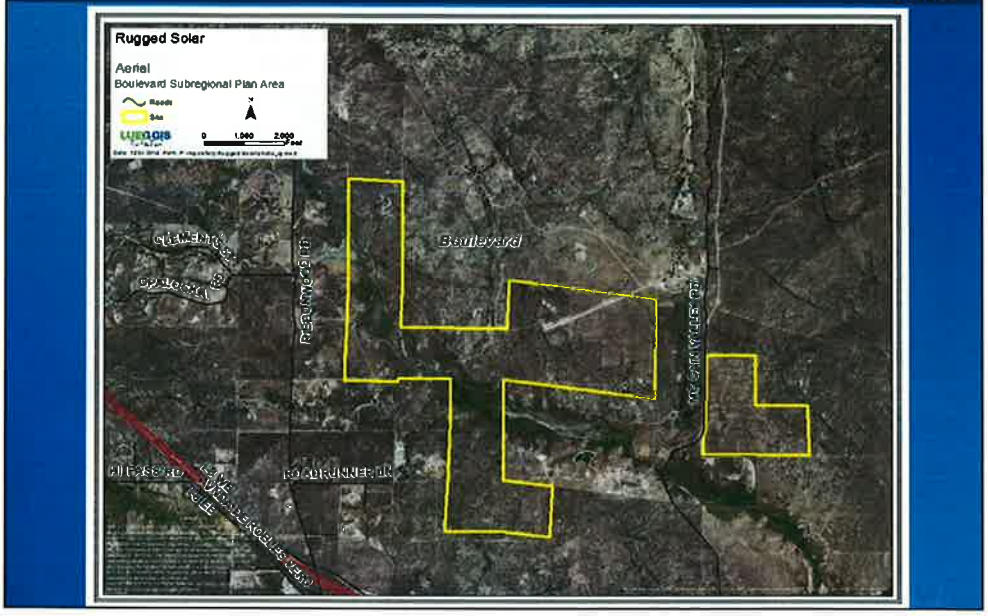
..... in the Community of Boulevard.

The Rugged Solar project is located north of Interstate 8 and the Tierra Del Sol Solar project adjacent to the United States-Mexico border.

The LanWest and LanEast projects are located immediately south of Interstate-8 and north of Old Highway 80. These project were analyzed in the EIR but are not before you for consideration.

The projects before you for includes only the Rugged Solar and Tierra Del Sol Solar projects.

Rugged Solar



The Rugged Solar project site measures 765 acres and is located east of Ribbonwood Road, and is bisected by McCain Valley Road.

Surrounding land uses to the east, west and south of the project site primarily consist of large rural lots supporting residential structures and undeveloped lands and lands to the north of the site are undeveloped and of a slightly higher elevation. Right-of-way and transmission structures associated with the Sunrise Powerlink are located in the eastern portion of the project site near McCain Valley Road.

The Rugged Solar site itself, consists of relatively flat to gently sloping land. These photos show the project site looking in an easterly direction from Ribbonwood Road.

Tierra Del Sol (TDS) Solar

The Tierra Del Sol project measures 420 acres and is located south and southeast of Tierra Del Sol Road. The project site is located adjacent to the United States-Mexico border.

Lands located east of the project site are crossed by parallel dirt roads providing access to existing Southwest Powerlink electrical transmission structures and nearby residences. Land uses north and west of Tierra del Sol Road are primarily large lot rural residential uses featuring residential structures, access roads, fencing and natural lands.

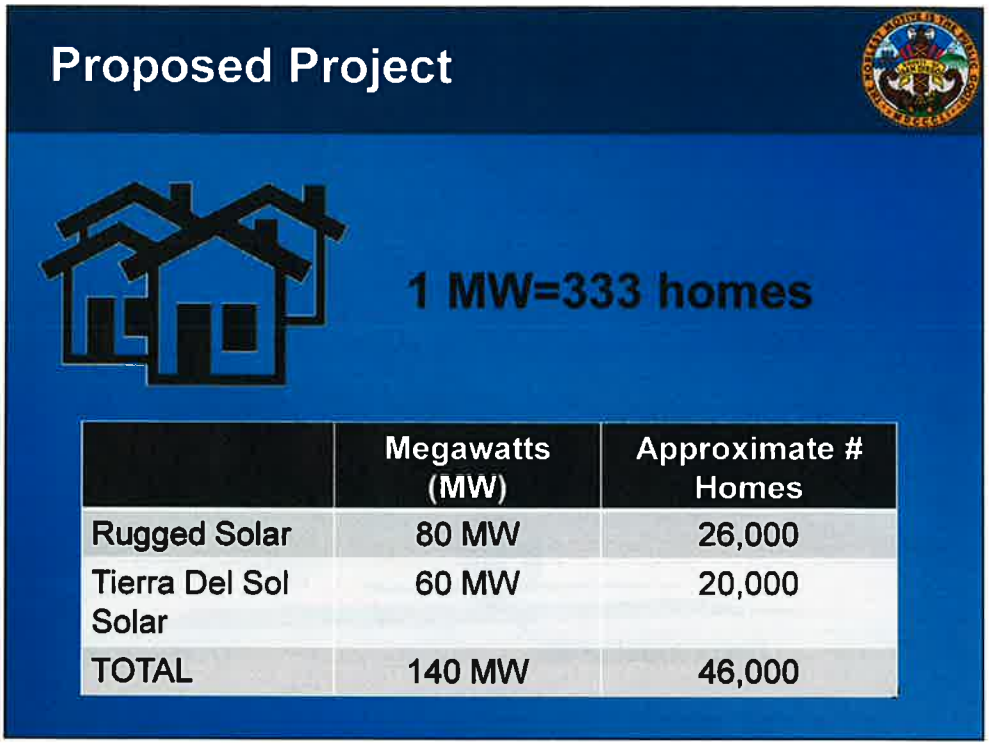
The Tierra Del Sol site slopes from east to west and has a central north–south trending ridge.

These photos show the site from two vantage points,

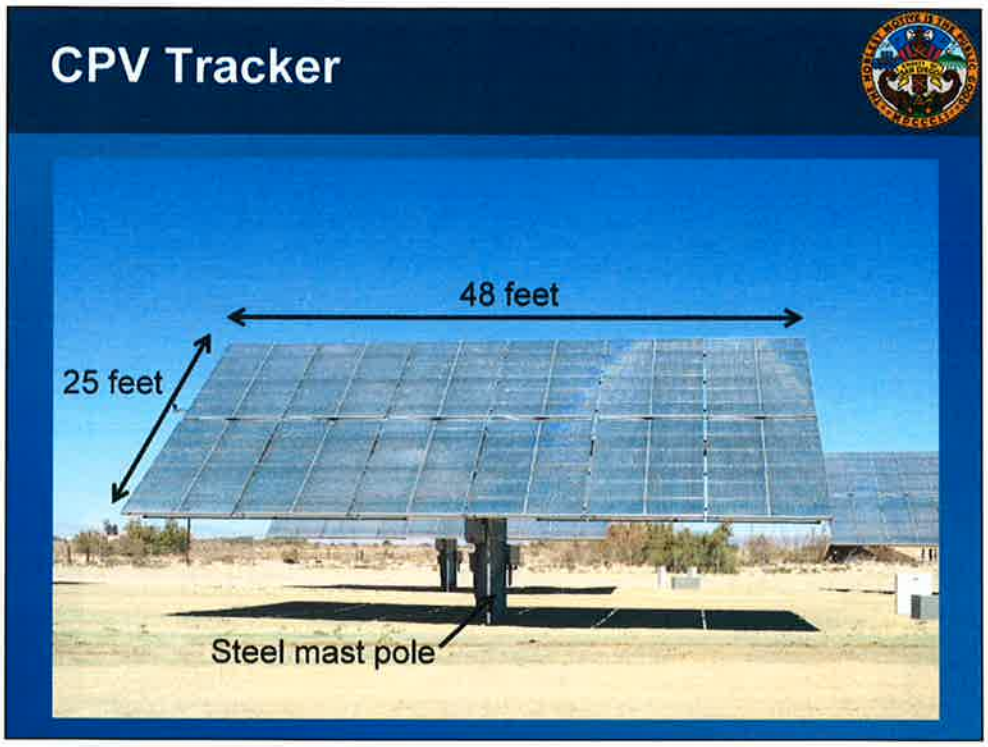
- The upper left photo is looking east along Tierra del Sol Road with the project site being located in the right hand side of the photo.

- The lower right photo is looking west across the southern portion of the TDS site. At the center right of the photo you can see the Southwest Powerlink running through the middle of the site.

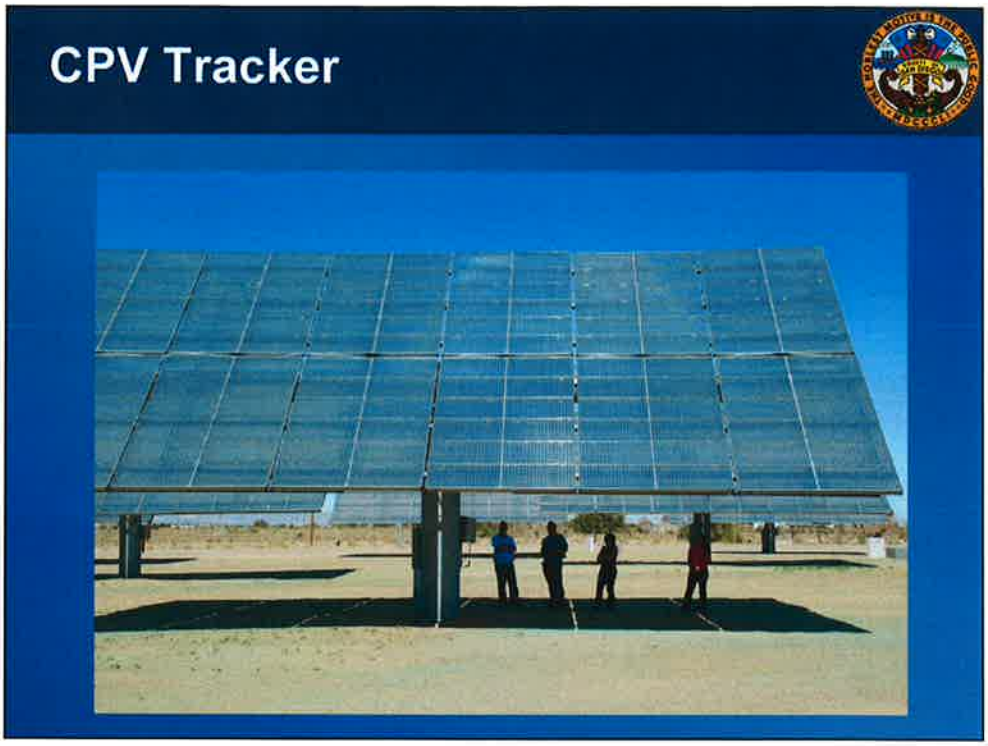
The two projects would utilize similar solar generation technologies, include similar common project components, and would have similar construction, operation, and decommissioning activities which will be discussed further in this presentation.



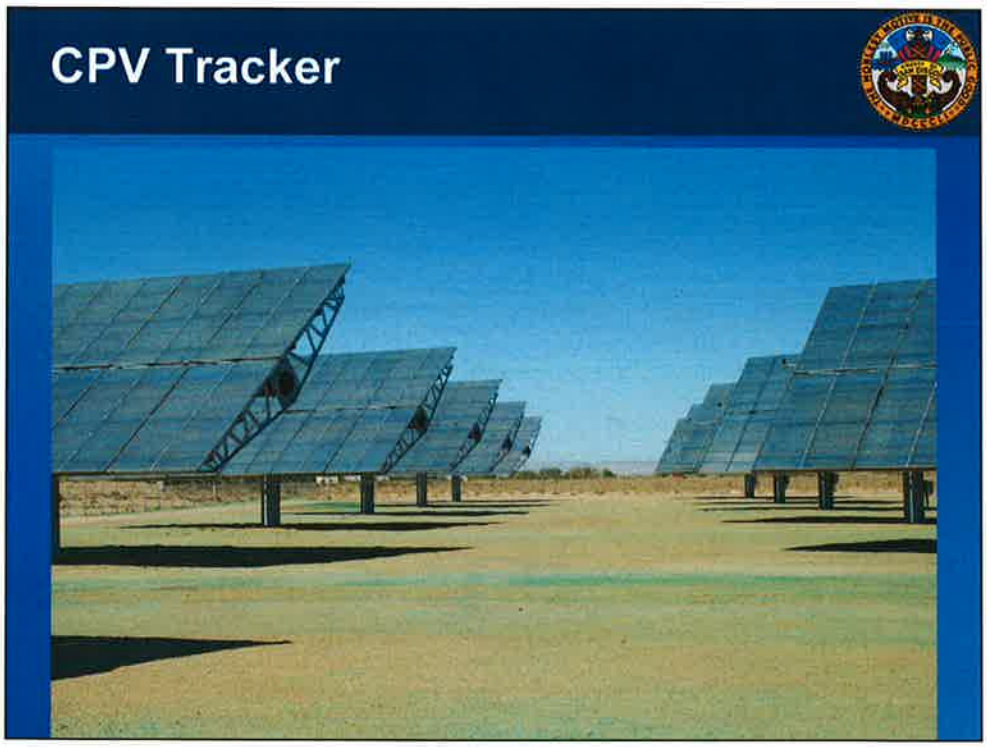
Combined, the projects would generate 140 megawatts which is enough power to serve approximately 46,000 homes.



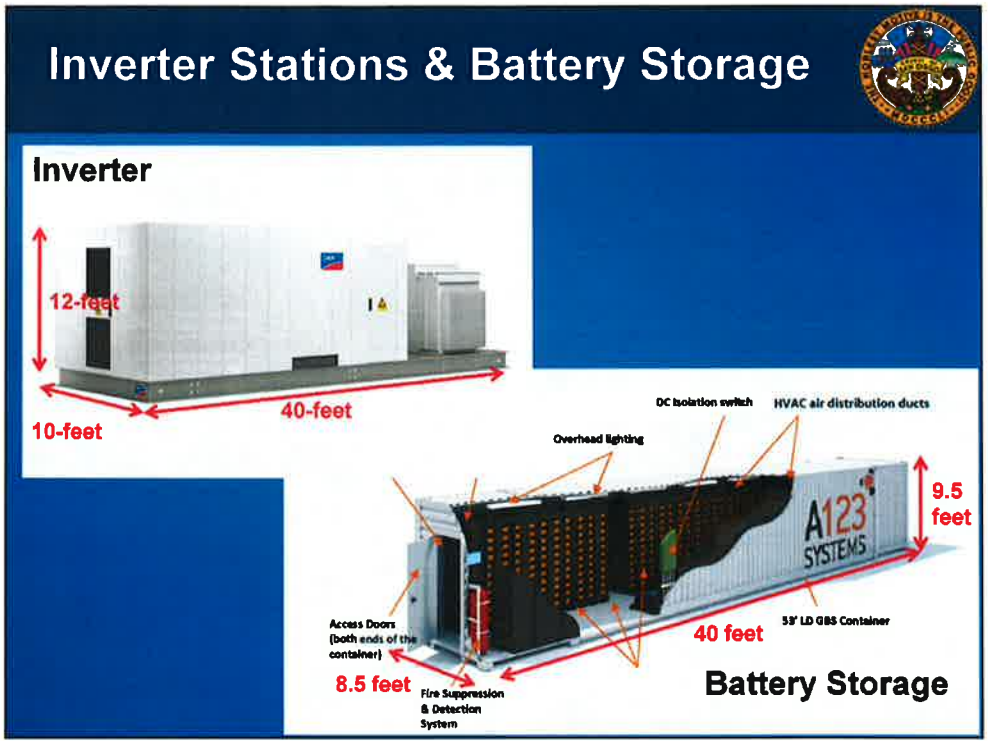
This energy would be captured through the use of concentrated photovoltaic, or CPV, which utilize a dual-axis tracking system, also referred to as a "tracker". The entire tracker assembly measures approximately 48 feet (CLICK) across by 25 feet (CLICK) tall and is mounted on a 28 inch diameter (CLICK) steel mast pole. In their most horizontal position, the trackers would have a maximum height of 13 feet, six inches and in their most vertical position, the trackers would not exceed 30 feet in height.



This photo was taken by staff during a field visit to an existing Soitec facility outside the County's jurisdiction and gives you an idea of the scale of a single tracker.

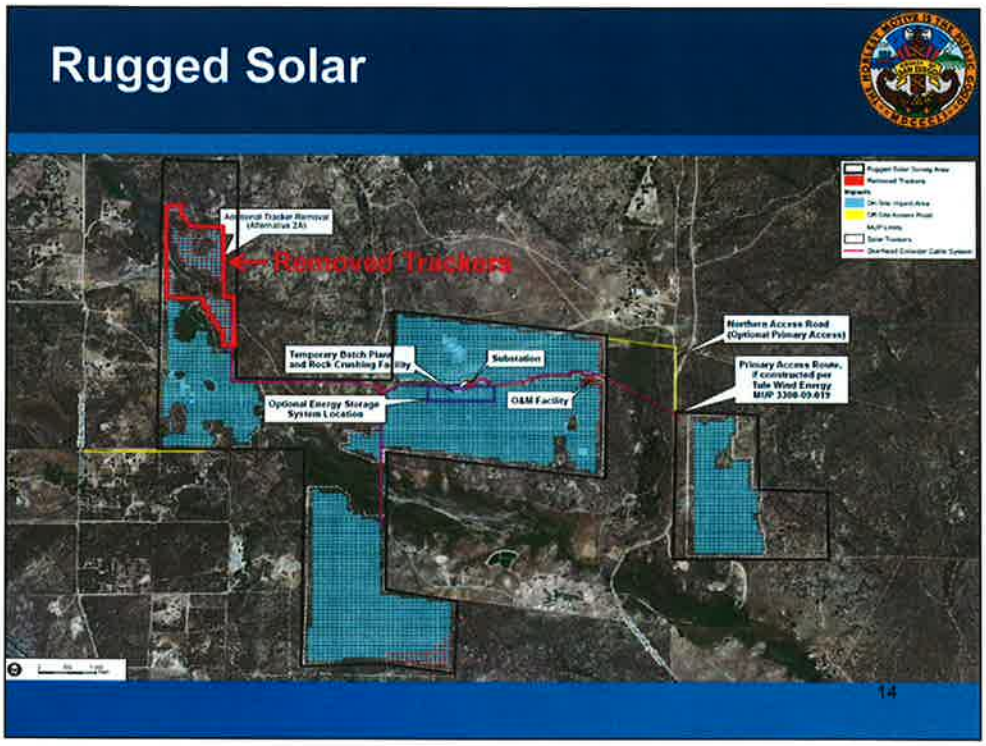


An array of several trackers is shown here. Within each project, individual trackers are spaced apart approximately 69 to 82 feet, on center, from one another. This spacing allows for the movement of vehicles, including fire trucks and other emergency response vehicles.



Each project would include approximately 50 inverter stations which are designed to convert power generated from the trackers from direct current or DC power to alternating current or AC power which is compatible with the SDG&E system and is the type of power that is eventually sold to residential and commercial customers. Each project would also include a fenced four acre operations and maintenance or O&M area including a 7,500 square feet O&M building which would include administrative and operational offices, warehouse storage area for material and equipment, and lavatory facilities.

The Rugged project could also include a seven acre area for an optional battery storage system that would provide 160 Megawatt hours of lithium ion battery storage that could power 52,800 homes for one hour.

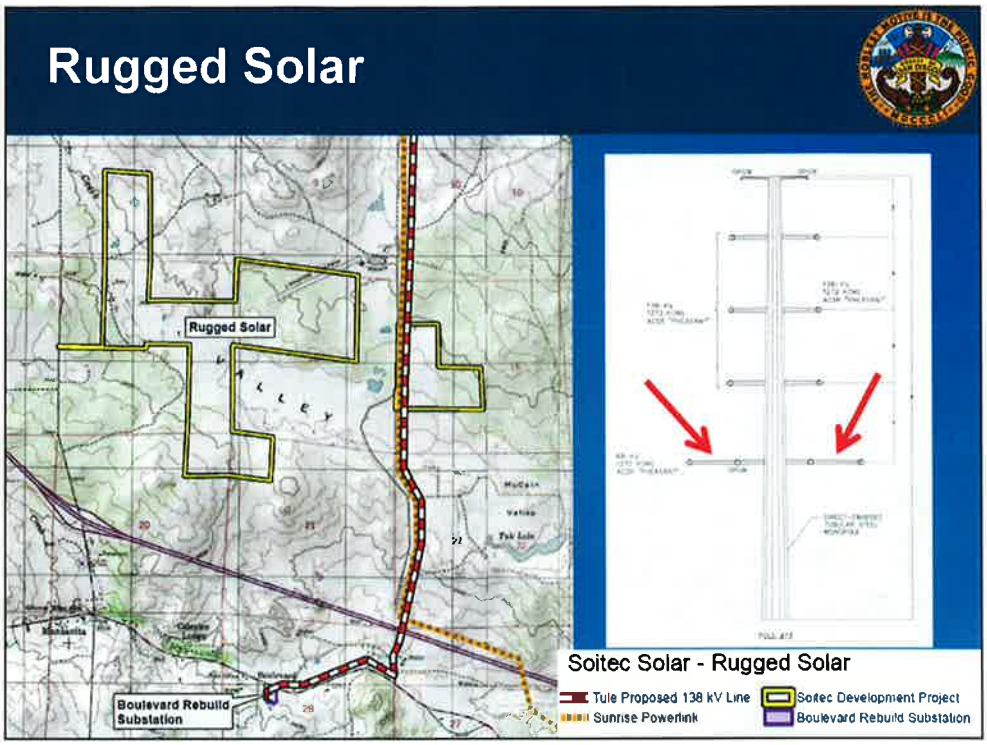


The Rugged Solar project includes a Major Use Permit for an approximately 80 megawatt solar facility and temporary batch plant and rock crushing facility.

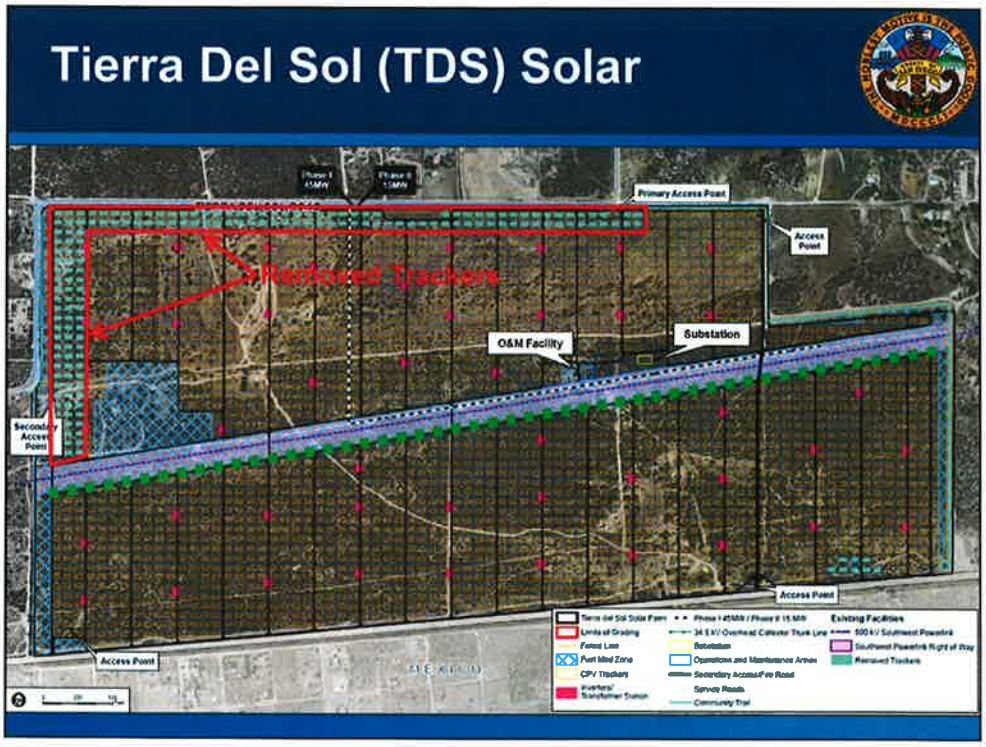
The temporary batch plant and rock crushing facility would serve both project sites and the material generated and or processed would be used solely for construction purposes and would be removed when construction activities were complete.

Once constructed, the project would include approximately 3,300 trackers and would produce energy to supply up to 26,000 homes.

Power from the trackers would be transferred underground to the inverters which would then move through an overhead collector system consisting of steel poles, at heights of 50 to 75 feet and spaced 300 to 500 feet apart. The overhead collector system would then deliver power to a private on-site collector substation.

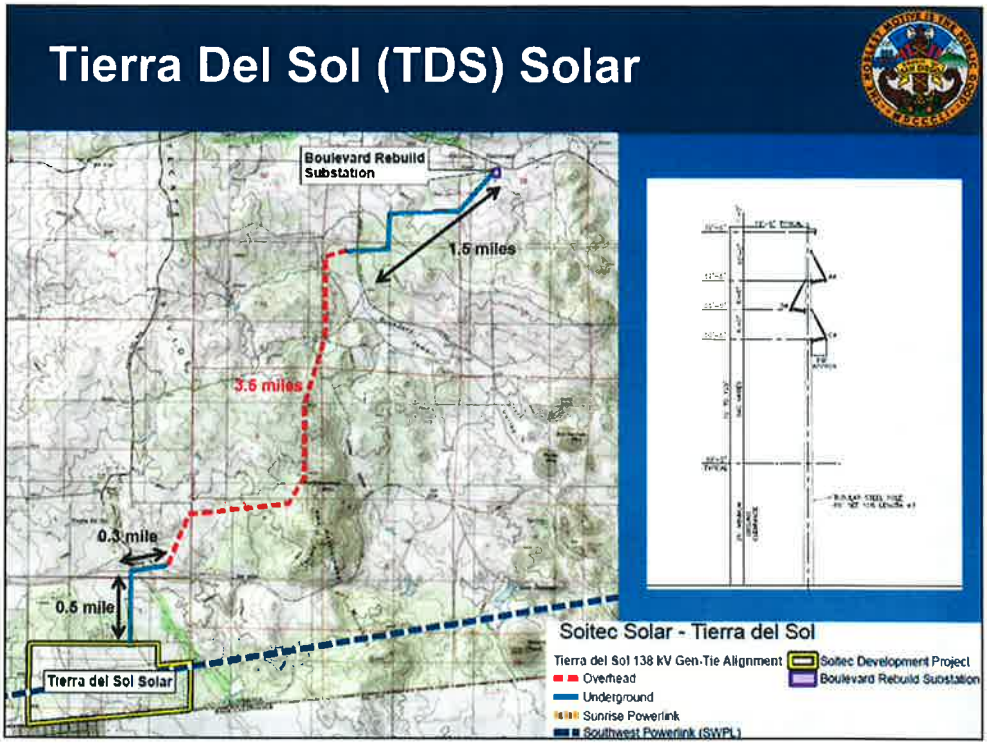


Power from the Rugged Solar substation would be delivered to the existing SDG&E Rebuilt Boulevard Substation via the Tule gen-tie, shown in this image as a red and white dashed line. The 138 kV gen-tie for the Tule Wind Energy project includes a 69 kV undersling line (CLICK) as illustrated here in red, which will be used to service the Rugged project. The Tule gen-tie was approved by a previous Board of Supervisors action on August 8, 2012 but has not yet been constructed.



The Tierra Del Sol project consists of a Major Use Permit for an approximately 60 MW facility which would contain 2,500 trackers and would produce enough energy to supply up to 20,000 homes.

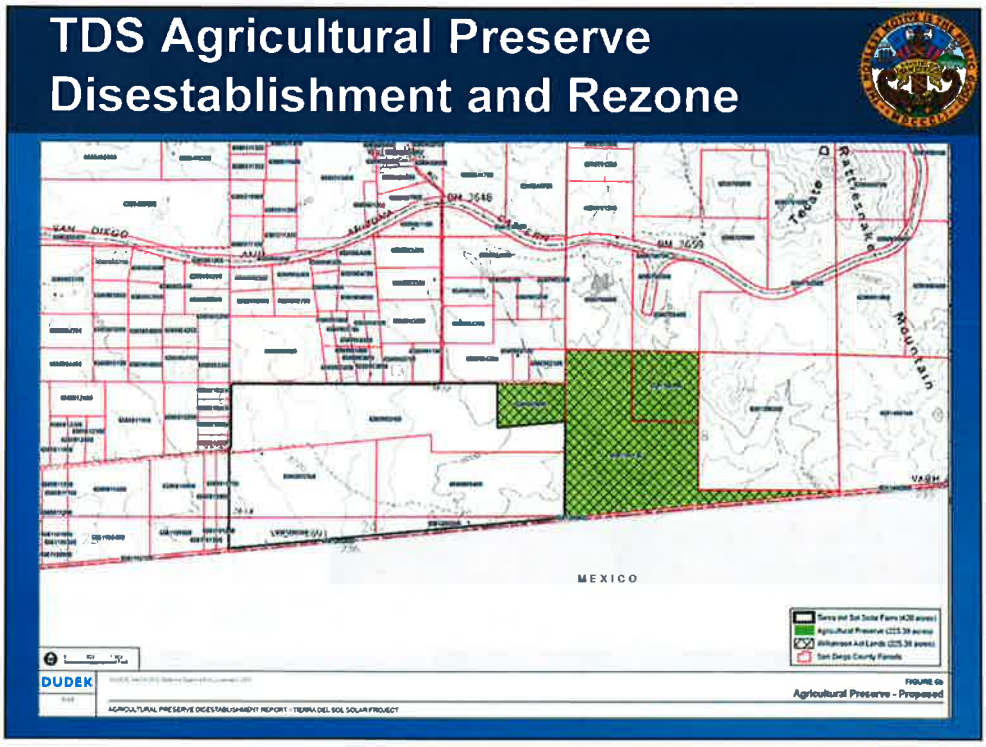
Power from the trackers would be delivered through an underground collection system to the inverters, then through an overhead collector system consisting of two on-site overhead conductor trunk lines, shown in green, adjacent to the Southwest Powerlink right-of-way which bisects the project site. The overhead collector system would consist of steel poles 50 to 75 feet in height and spaced 300 to 500 feet apart. The overhead collector system would then deliver power to an on-site collector substation.



Power from the TDS substation would be delivered to SDG&E's Rebuilt Boulevard Substation via a new six mile gen-tie line with sections of the line occurring both overhead and underground.

The underground alignment of the gen-tie is shown as a solid blue line, and the overhead alignment of the gen-tie is shown as a dashed red line. The aboveground portion of the gen-tie could consist of the placement of up to 40 poles ranging in height from 75 to 125 feet as shown here on the right.

For the underground portion of the gen-tie line, the line is proposed to be located both on private and public property. For the quarter mile of public property north of the project site, the applicant is seeking your approval of a Franchise Agreement to use quarter mile of Tierra Del Sol Road right-of-way for the purposes of constructing, operating, and maintaining the gen-tie.



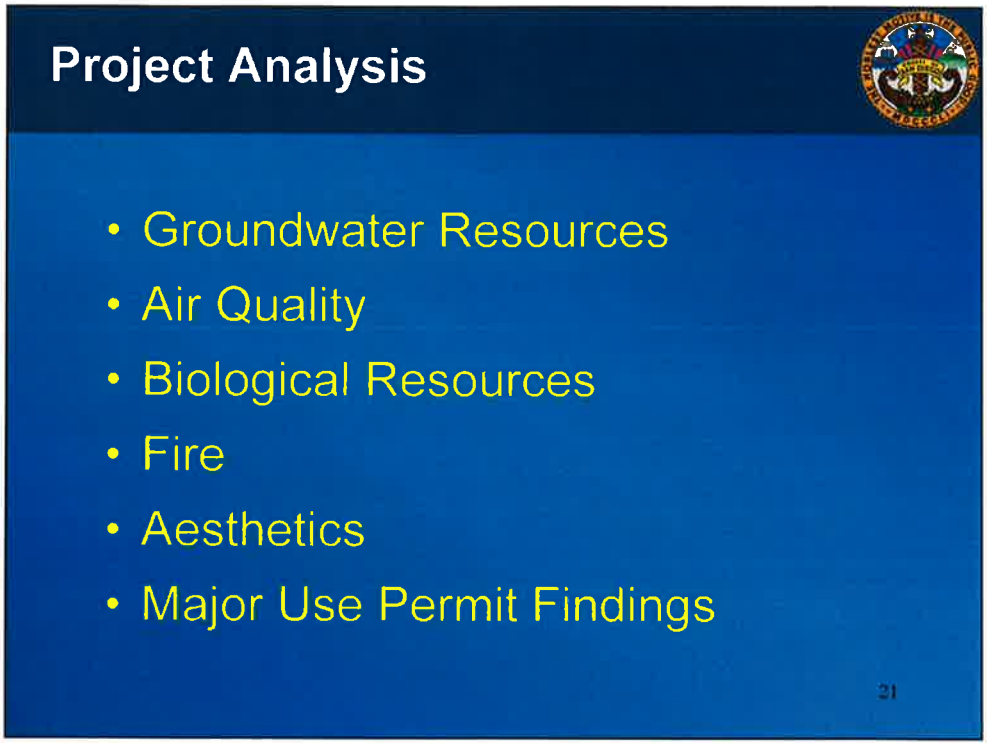
The northern portion of the TDS site is located within a 339 acre agricultural preserve as shown in green. Lands adjacent to the site are within a Williamson Act Contract but the project site itself was non-renewed in 1988 and therefore is no longer under contract.

The proposed use would not be consistent with the agricultural preserve and therefore the project includes an Agricultural Preserve Disestablishment to remove (CLICK) the portion of the agricultural preserve on the TDS site. The adjacent lands would remain within the preserve and under the existing Williamson Act Contract.

To reflect the disestablishment of the agricultural preserve, the applicant is also proposing a Rezone to remove the "A" special area designator from the applicable site zoning regulations.

Both projects are conditioned to enter into a decommissioning agreement with the County. This agreement stipulates that at the end of the life of the facility or at such time it is no longer needed, the facility will be removed and the site restored. Work completed pursuant to this agreement will be funded through a bond that will be calculated against the grading and building plans, and posted with the County at the time the agreement is executed.

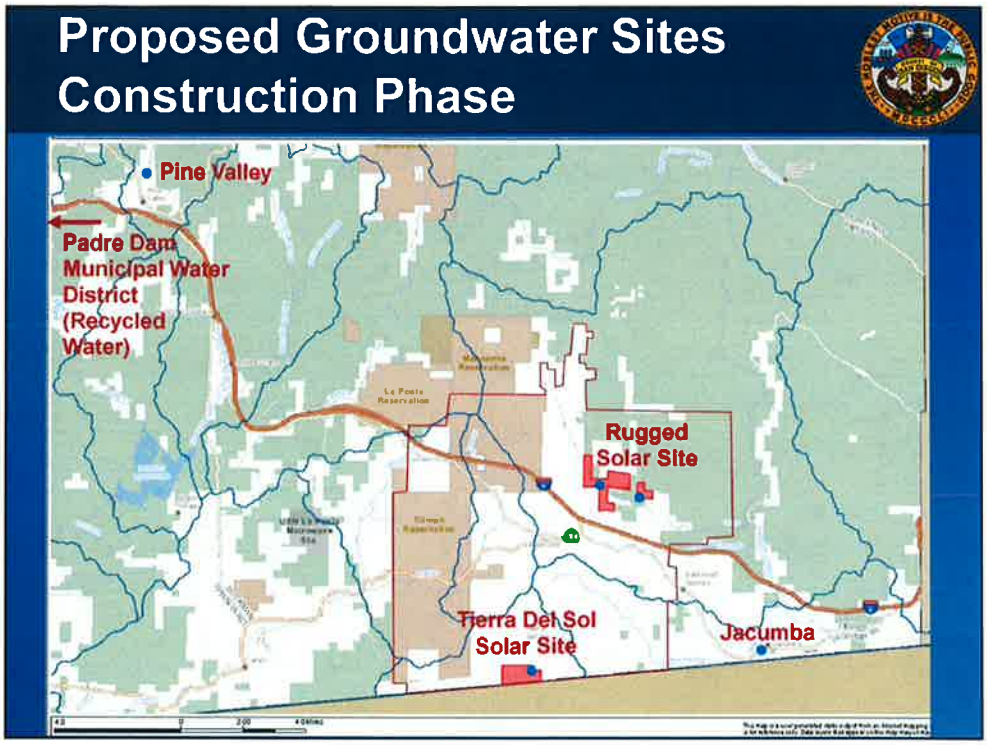
During processing of the Rugged and TDS projects, staff evaluated the project in accordance with applicable regulations, in accordance with CEQA and with consideration of public input.



Groundwater resources, air quality, biological resources, fire, aesthetics, and Major Use Permit Findings were identified as issues.

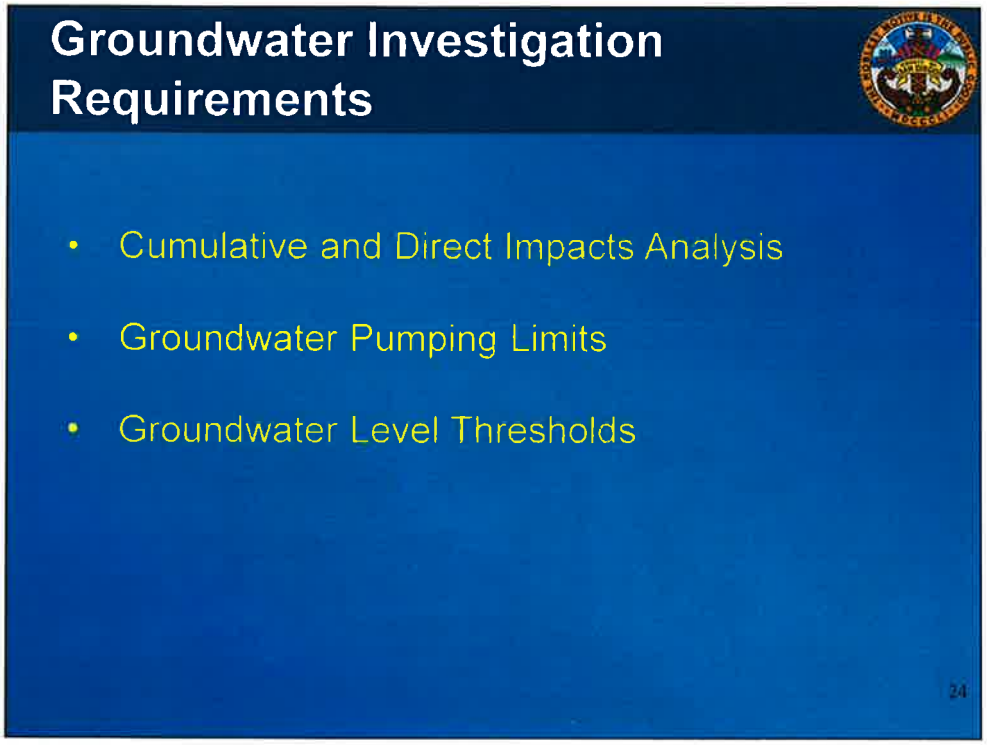
The first area of concern is the availability and quality of groundwater resources. Since this area of the County is dependent upon groundwater, the projects analyzed their impacts to said resource.

Jim Bennett, the County's groundwater geologist will provide a summary of the evaluation of groundwater resources and the measures in place to ensure that groundwater resources are not significantly impacted.



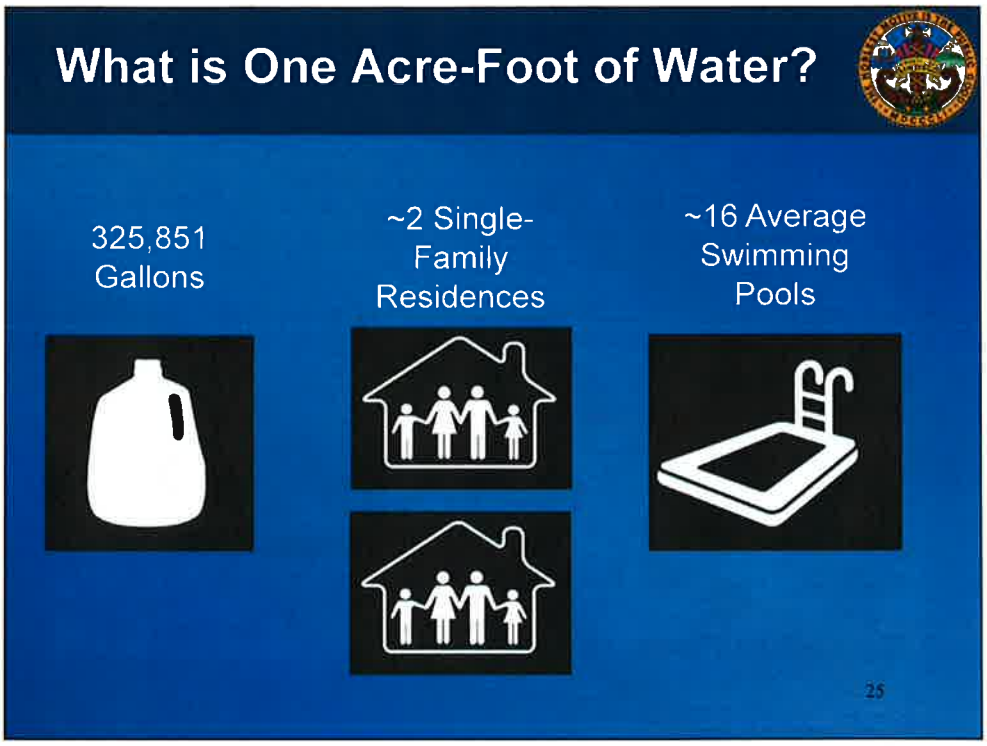
Solar projects typically require large amounts of water during the construction phase for uses such as dust control and soil compaction and much less water for ongoing uses including cleaning the solar panels and landscaping.

The construction phase of this project has required development of a water resource portfolio to serve the water demand, which includes utilizing on-site wells as shown in blue at the Rugged and TDS sites, importing groundwater from two wells shown in blue from Pine Valley Mutual Water Company and Jacumba Community Services District, and importing recycled water from the Padre Dam Municipal Water District.

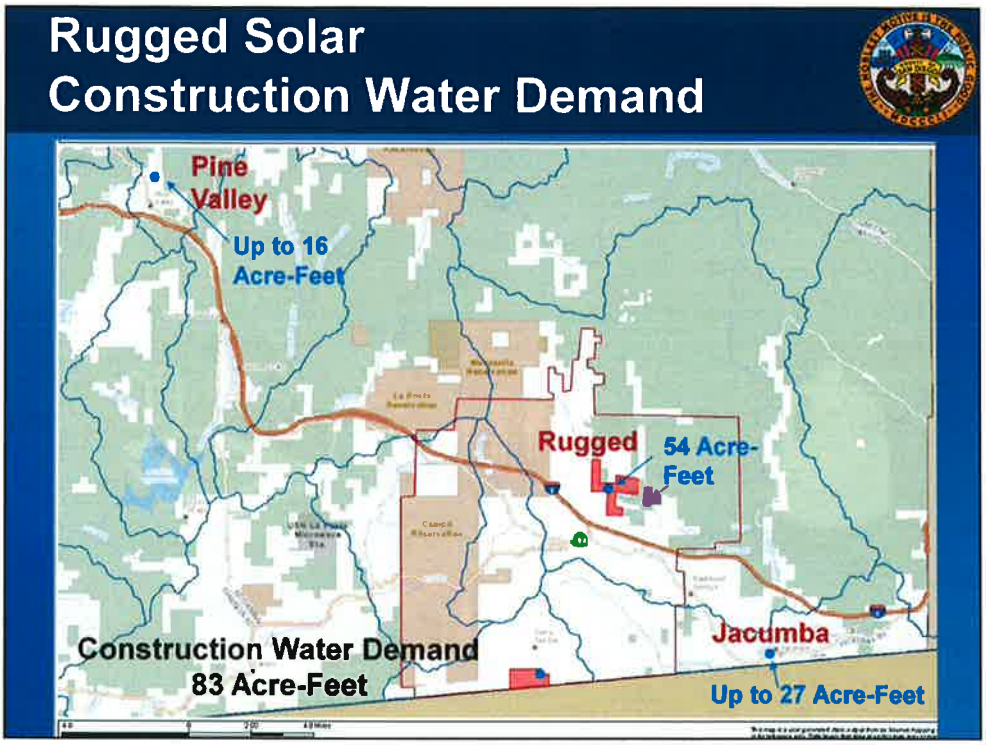


The groundwater analysis included evaluation of potential cumulative impacts to each drainage basin and direct impacts to the nearest existing well users and groundwater dependent habitat.

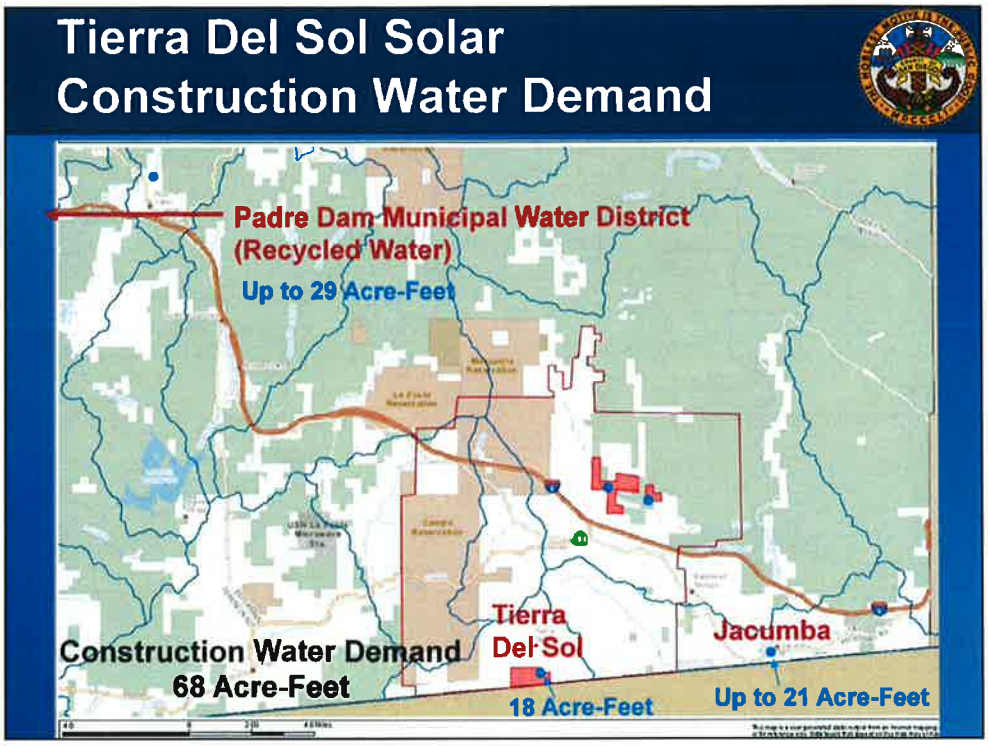
From the analysis, maximum groundwater pumping limits and groundwater level thresholds were established. Groundwater pumping would be required to cease if established thresholds are exceeded to protect offsite well users and groundwater dependent habitat.



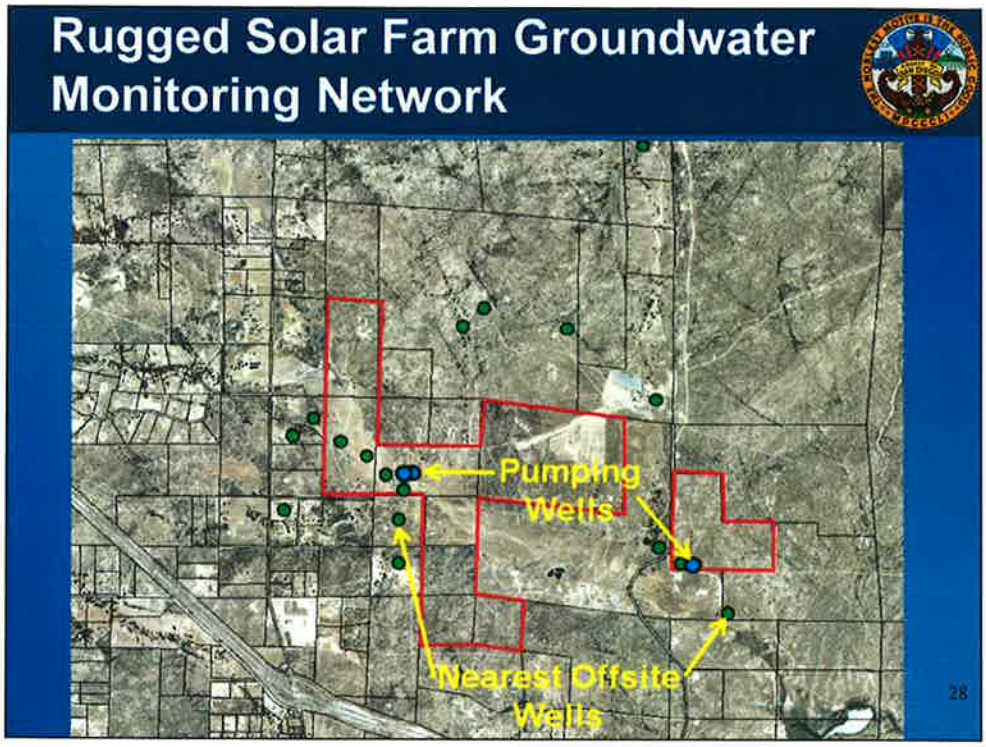
In order to aid in understanding the next few slides in regard to discussion of water in terms of acre-feet, an acre-foot is equivalent to approximately 326,000 gallons of water; equivalent to the water use per year of approximately 2 average single-family residences; or the volume of filling an average swimming pool about 16 times.



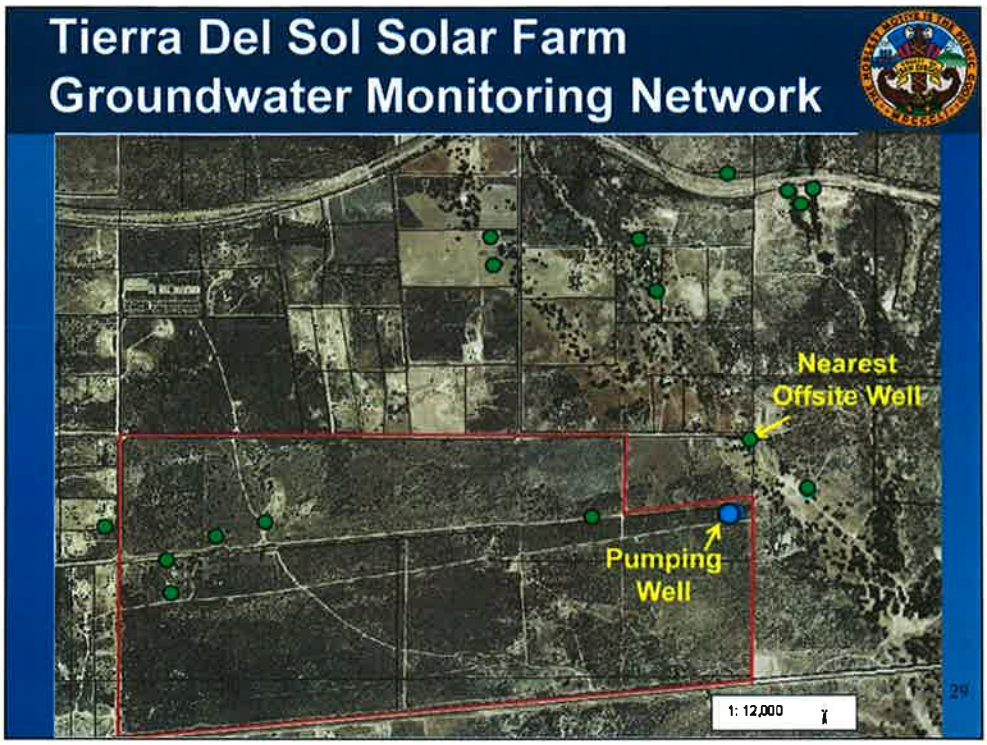
The Rugged project requires 83 acre-feet of water over the 12 month construction period, with peak water demand requirements during the first 60 days of construction. Maximum pumping limits have been placed on the on-site wells, the Jacumba Community Services District, and the Pine Valley Mutual Water Company that will serve the Rugged project.



The TDS project requires 68 acre-feet of water over the 12 month construction period, with peak water demand requirements during the first 60 days of construction. Maximum pumping limits have been placed on the on-site wells and the Jacumba Community Services District, with additional recycled water to be imported from Padre Dam Municipal Water District.

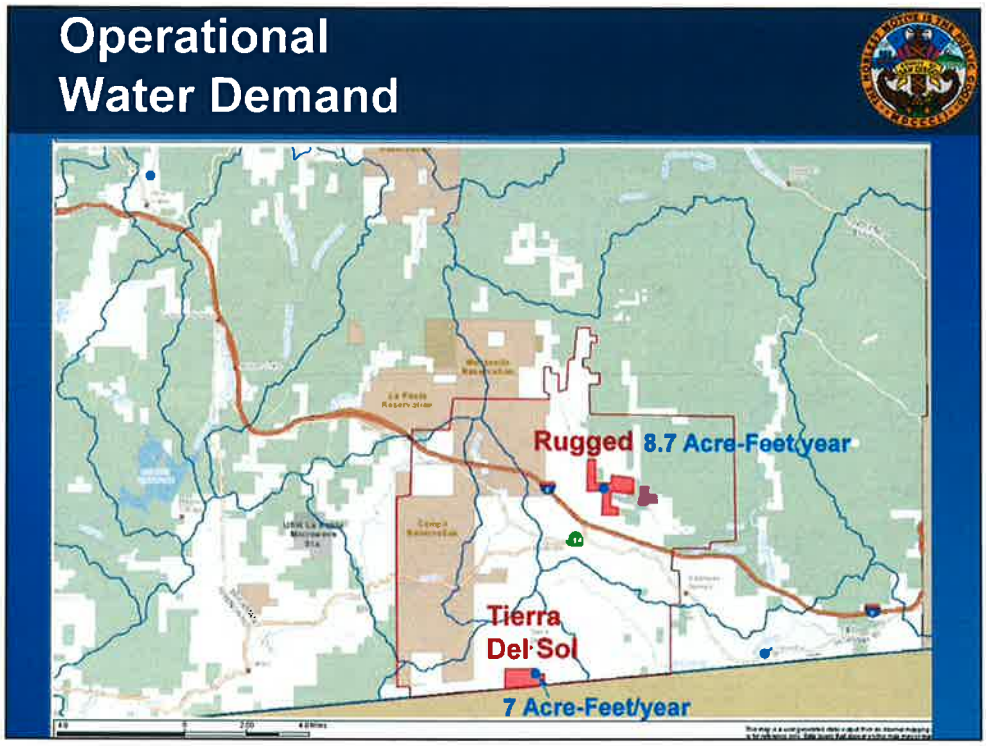


The Rugged project has a groundwater monitoring network that has been established and includes up to 20 on- and off-site wells which will be monitored. The wells would be outfitted with automated water level reading devices to ensure continuous monitoring of the water levels within each well.

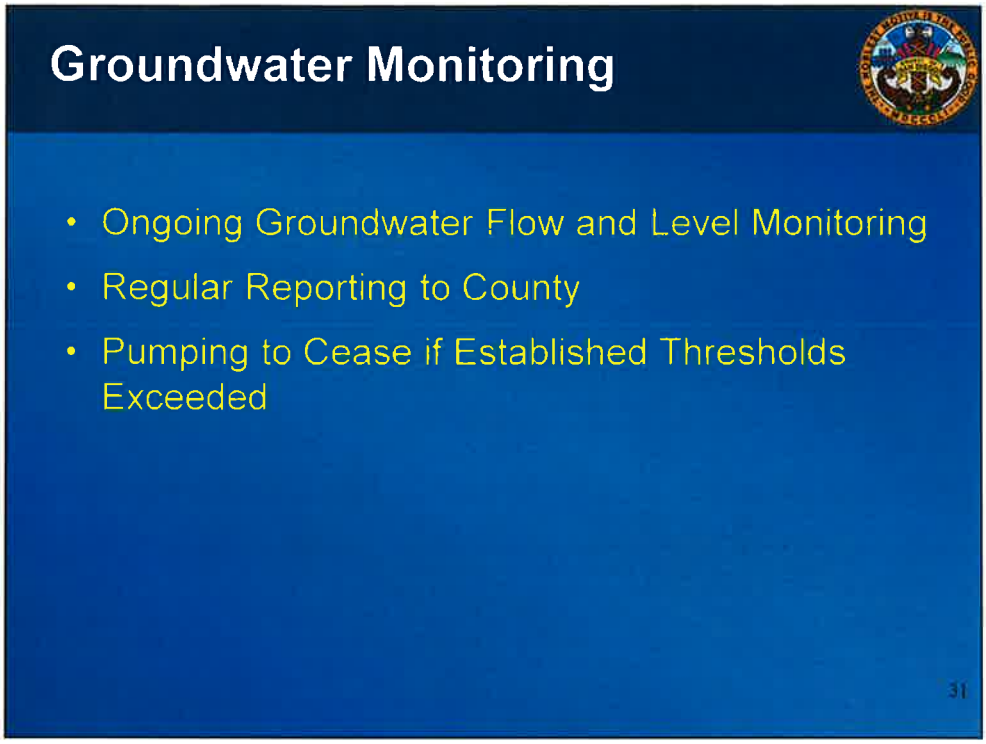


The Tierra Del Sol project has a groundwater monitoring network that includes up to 17 on- and off-site wells which will be monitored.

Based on the testimony and deliberation received during the Planning Commission hearing, the Planning Commission recommended changes to the groundwater conditions to further protect groundwater resources in the project area. These include the addition of three wells to the monitoring network for the Rugged project and allowing for any additional residential wells within a 1 mile radius to be added to the groundwater monitoring network for both the Rugged and Tierra Del Sol project sites. PDS concurs with these modifications and the conditions have been updated to reflect these changes.



The operational water demands of these two projects is substantially less with Rugged and TDS on-site production wells requiring up to 8.7 acre-feet and 7 acre-feet per year, respectively. This includes water for tracker washing, potable water needs, landscape vegetative screen, and annual re-application of the soil binding stabilization agent.



For each site, the amount of water pumped from the wells and water levels shall be regularly recorded, and groundwater monitoring reports shall be submitted to the County. If at any time established production or water level thresholds are exceeded at any of the sites, pumping from the associated pumping well shall cease and the County will be notified of the exceedance. The Planning Commission recommended reducing the time of notification to the County if exceedance of groundwater pumping or drawdown thresholds occurs from 5 days to 24 hours. PDS concurs with this recommendation and the conditions have been updated to reflect this change.

Based on the analysis, it has been concluded that there would be a less than significant impact to groundwater resources. Recent comment letter received related to groundwater do not contain any new information that would change staff's conclusions regarding groundwater supply for these projects.

The next area of concern is air quality. Air quality impacts associated with the Rugged and TDS projects are related to emissions from short-term construction and long-term operations.

Similar to other development projects, construction may affect air quality as a result of emissions from construction equipment and vehicles driven to and from the site, and fugitive dust from grading and earthmoving.

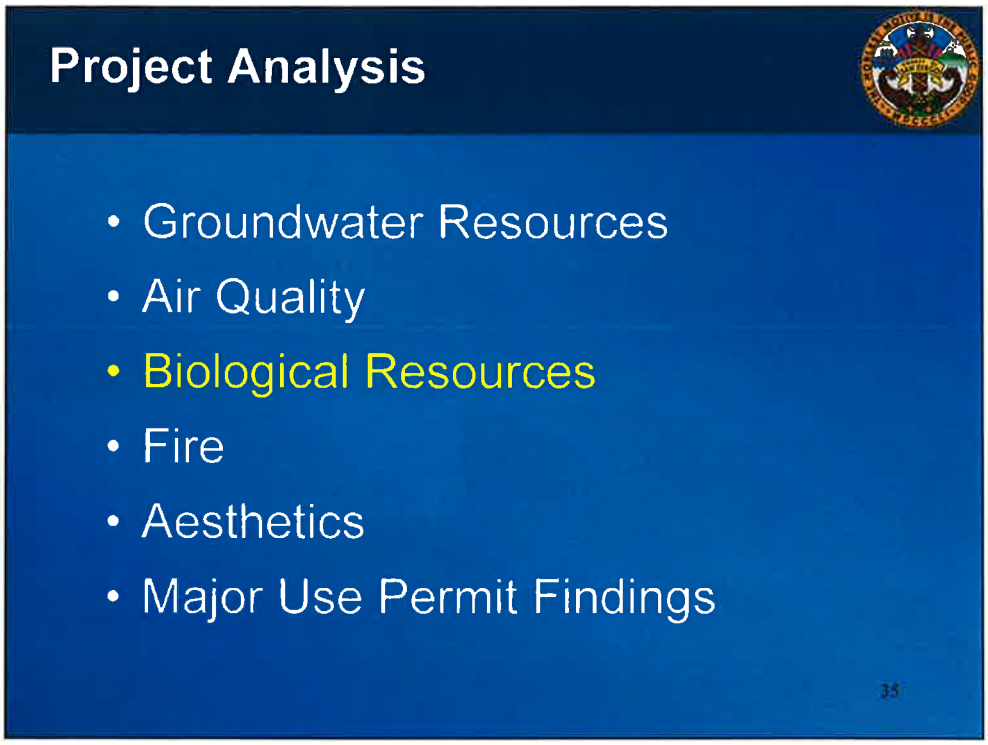
Operational emissions would result primarily from vehicle exhaust.

Individually, daily construction emissions and daily operational emissions for the Rugged and TDS projects would not exceed air quality thresholds.

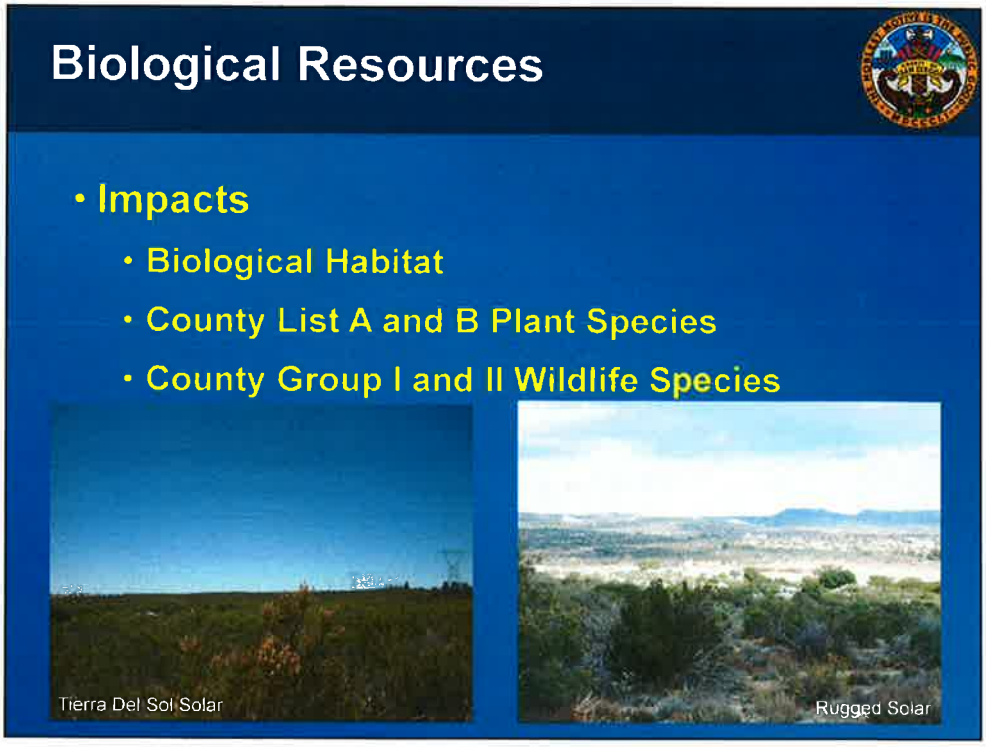
However, since the construction of both projects is expected to occur at the same time, the projects when combined are anticipated to exceed maximum daily emissions during construction activities.

To address this impact, the projects have been conditioned to apply measures to minimize air quality impacts during the approximate 1 year construction period.

Although long-term operational emissions of the Rugged Solar and TDS projects would be below the thresholds, dust control measures in accordance with the requirements of the County Grading Ordinance have also been incorporated into the conditions of approval for each project.



Biological resources on the Rugged and TDS project sites was evaluated through a variety of habitat mapping and field surveys, including a raptor habitat assessment.



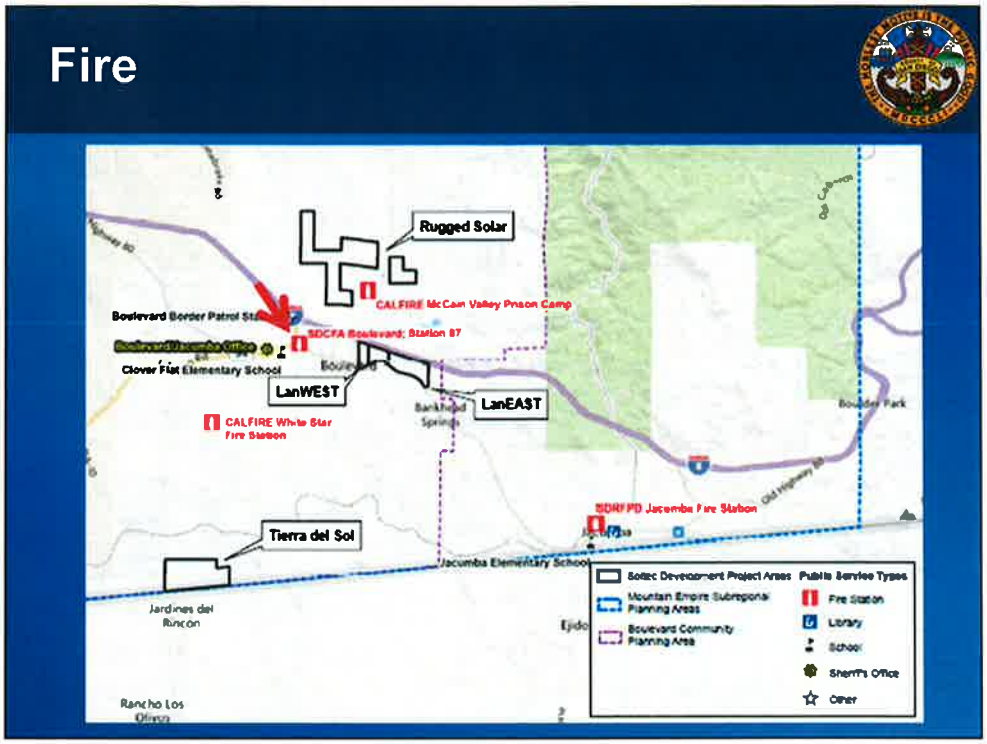
The analysis concluded that the project will result in potential impacts to biological habitat.

One of the potential impacts that is most notable to mention is related to Golden eagles. While the project sites constitute golden eagle foraging habitat, there are no nests documented within 4,000-feet of the Rugged or TDS projects and there is no suitable nesting habitat within the project areas due to the lack of forested areas and cliffs.

In order to mitigate the potential impacts on biological resources, including foraging habitat for golden eagles, several measures would become conditions of approval of the Major Use Permit. These conditions include offsite preservation with long term management, construction monitoring, measures to minimize edge effects, conditions to obtain necessary federal and state permits, implementation of revegetation and ongoing monitoring for birds and bats.

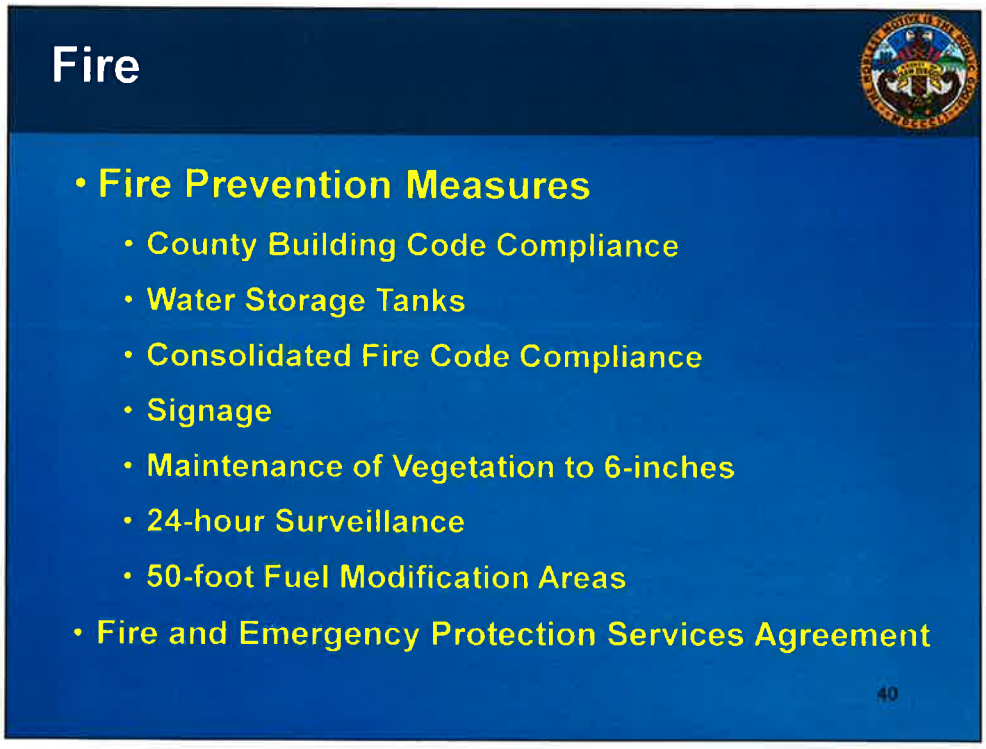
With the implementation of the offsite mitigation and the additional mitigation measures detailed previously, the Rugged and TDS projects would have a less than significant impact on biological resources.

The Rugged and TDS sites are designated as a Very High Fire Hazard Severity Zone by CalFire. Concerns have been raised that the Rugged and TDS projects will increase the severity of the fire hazards in the area.



Fire protection in the area of the Rugged and TDS projects is shared by several agencies, with the San Diego County Fire Authority and CalFire providing significant resources. The closest fire station is the Boulevard Volunteer Fire Department (CLICK) which is located 2.2 miles south of the Rugged project site and 5.9 miles north of the TDS project site.

Fire Protection Plans have been prepared for each the Rugged and TDS projects which include fire prevention measures to reduce the risk of structural and human loss due to wildfire.



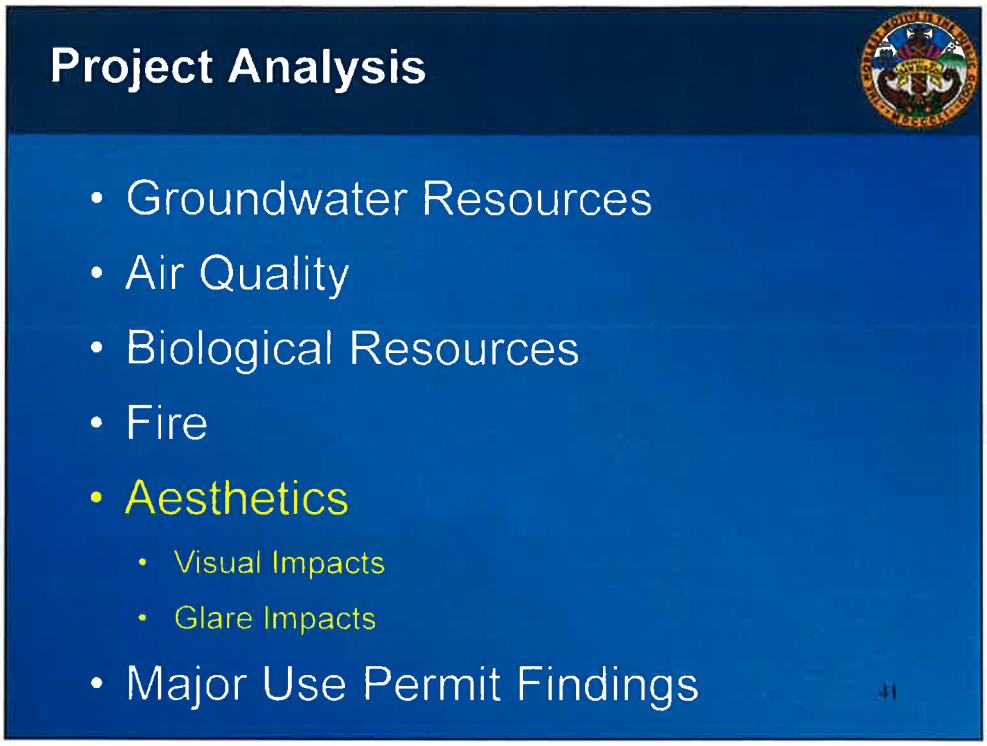
Those measures are summarized here....

In addition, as detailed in the TDS fire protection plan, the overhead portion of the TDS gen-tie will be constructed on steel poles designed for extreme winds that meets or exceed current California Public Utilities Commission standards. The line will also have an overhead static wire to reduce risks from lightning and automatic shut offs in the event of a short or break in the line.

The gen-tie will also be designed to minimize fire and safety risk. These standards require the maintenance of vegetation clearance, a minimum distance from the ground to bottom of the transmission line, and more which are all regulated by State and Federal Regulations including the California Public Utilities Commission GO 95, Rules for Overhead Electric Line Construction and California Code of Regulations.

It has also been concluded that the proposed gen-tie would not interfere with implementation of emergency responses in the area including aerial firefighting operations.

With the incorporation of the measures detailed in the fire protection plans, the project would not have a significant impact that would expose people or structures to a significant risk of loss, injury or death involving wildland fires.



Another area of concern is aesthetic impacts resulting from visibility of the facility and glare impacts on surrounding neighbors and roads.

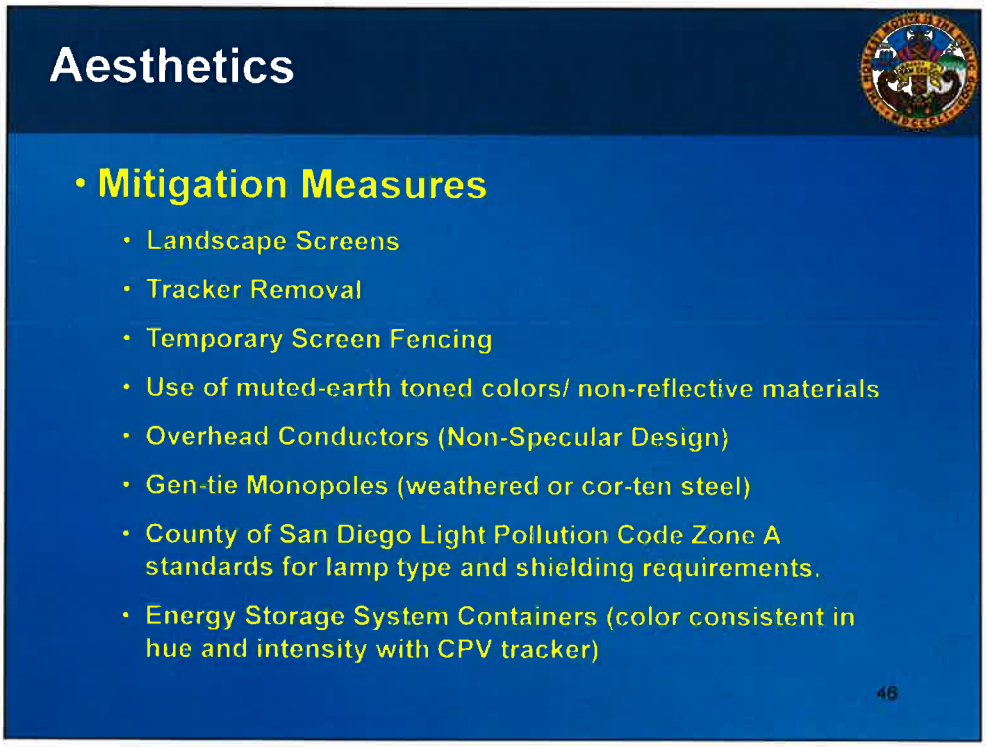
Throughout the processing of the project, modifications have been made to the Rugged and TDS projects, including increased setbacks from visually prominent locations and the incorporation of landscape screening to lessen the visual impacts resulting from the project.

This first slide shows the existing conditions along Tierra Del Sol Road and the proposed project as originally proposed with installation of landscape screening, prior to the removal of trackers.

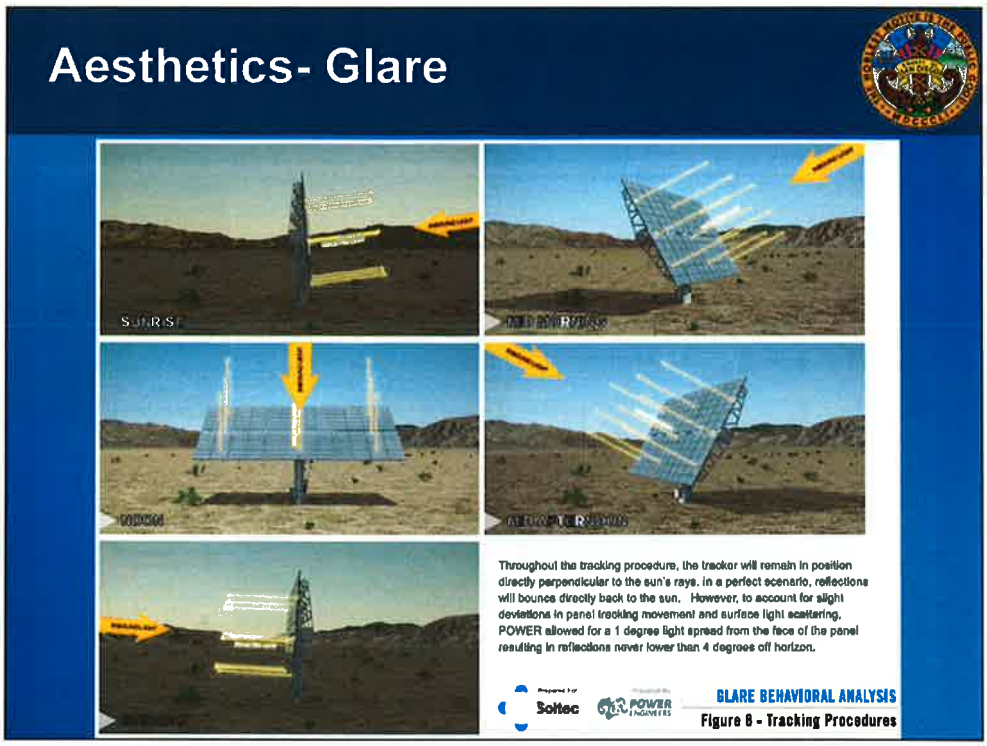
The photo on the bottom right shows the current proposal which reflects the project modifications, including increased setbacks along Tierra Del Sol Road.

Likewise, this first slide shows the existing conditions along Tierra Del Sol Road and the project as originally proposed with installation of landscape screening and prior to the removal of trackers....

...and this slide shows the current proposal reflecting project modifications, including increased setbacks and landscaping along Tierra Del Sol Road.

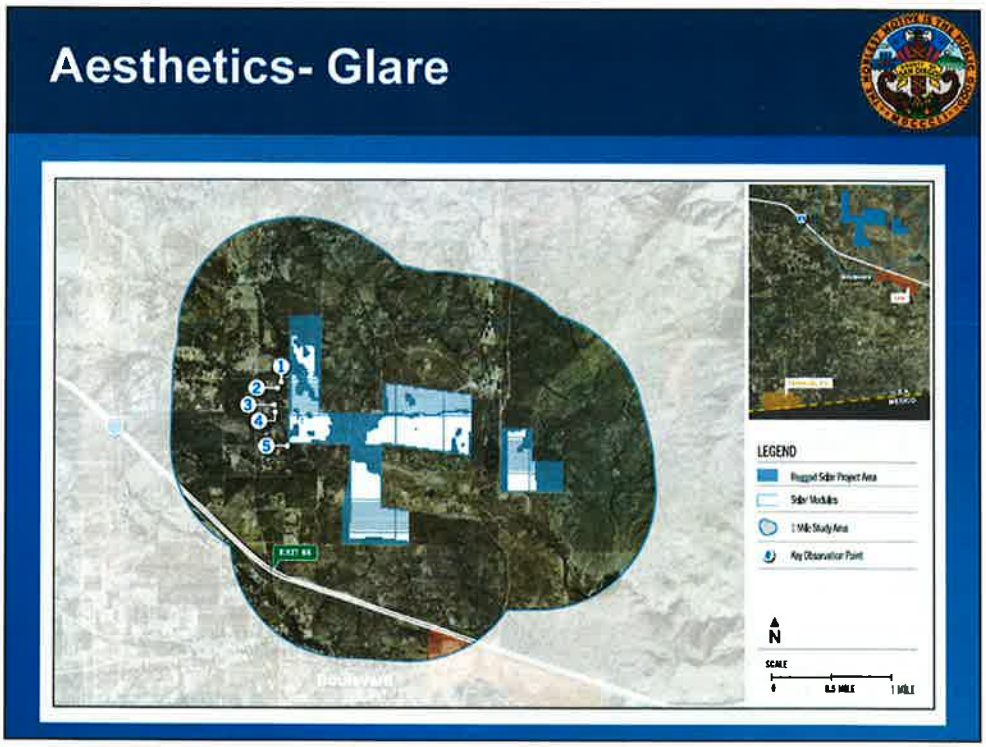


As evident in the previous photosimulations, views of the Rugged and TDS projects cannot be fully screened from view and therefore, the project will result in significant and unavoidable impacts to aesthetic resources. Achievable measures, as detailed here, have been taken to reduce the visual impacts to the extent feasible.



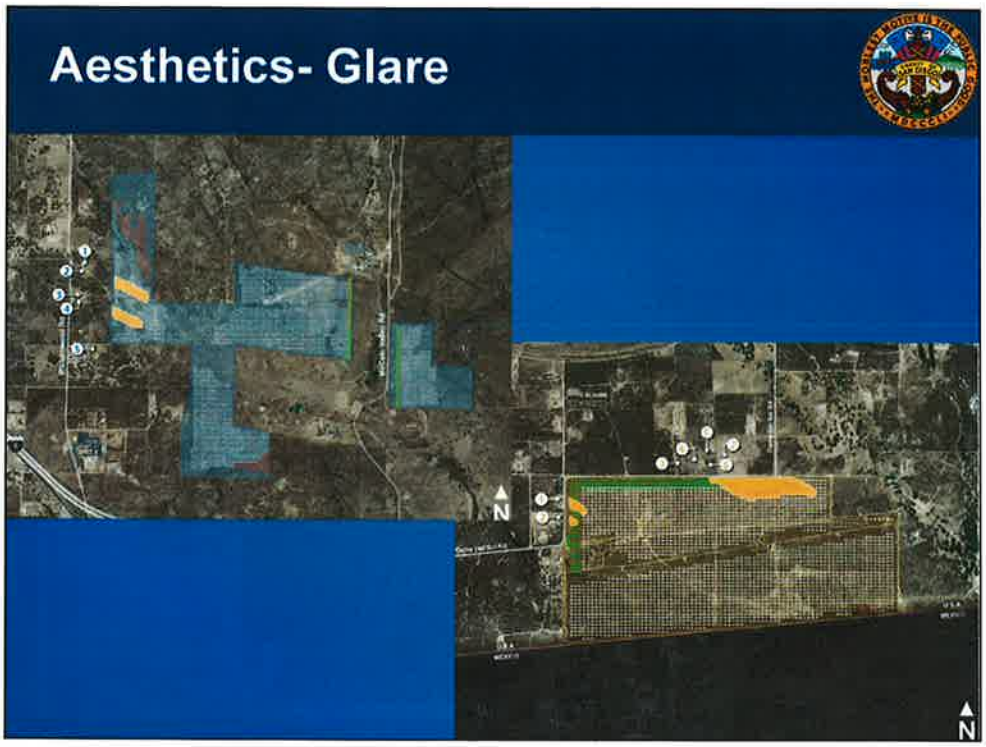
In addition to the aesthetic impacts, the project also has the potential to produce glare for short periods of the day at specific locations. CPV trackers are designed to directly face and track the sun throughout the day as illustrated in this image. The occurrences of glare are limited and in all cases, the occurrence of glare is limited to the early mornings and late evenings when the sun is lowest in the sky.

As concluded in the glare study prepared for this project, the intensity of glare produced by the CPV trackers would be less than that of metal, glass, and water and the generated reflection values are not considered hazardous to vision.



Based on the analysis completed in the glare study, it was determined that during operation of the Rugged project, five residences, as illustrated in this image could receive glare. The glare would be received during the hour leading up to sunset with duration of daily glare exposure being less than 45 minutes. Two of the five residences would receive glare throughout the year and the remaining three residences would receive glare seasonally.

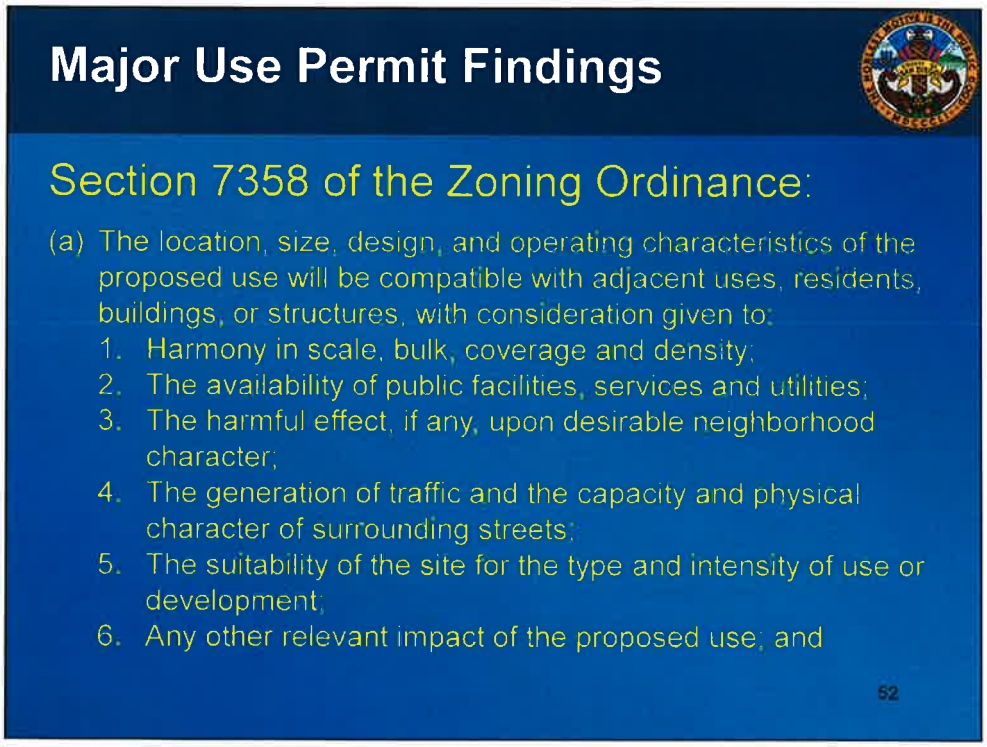
For TDS, glare could be received by five residences to the north (during summer months), two residences to the west, and by motorists along an approximate one-mile segment of Tierra del Sol Road located adjacent to the northern and western project boundary. The daily duration of glare exposure throughout the year would be one hour or less at the two residences located to the west, and during summer months, the daily duration of glare exposure at the five residences to the north would be less than 35 minutes. The glare along the approximate one-mile segment of Tierra Del Sol Road would have a daily duration not exceeding two hours.



The Planning Commission, based on public testimony and discussion, recommended that additional study be conducted to determine whether or not feasible measures could be incorporated to further reduce glare impacts on neighboring residences.

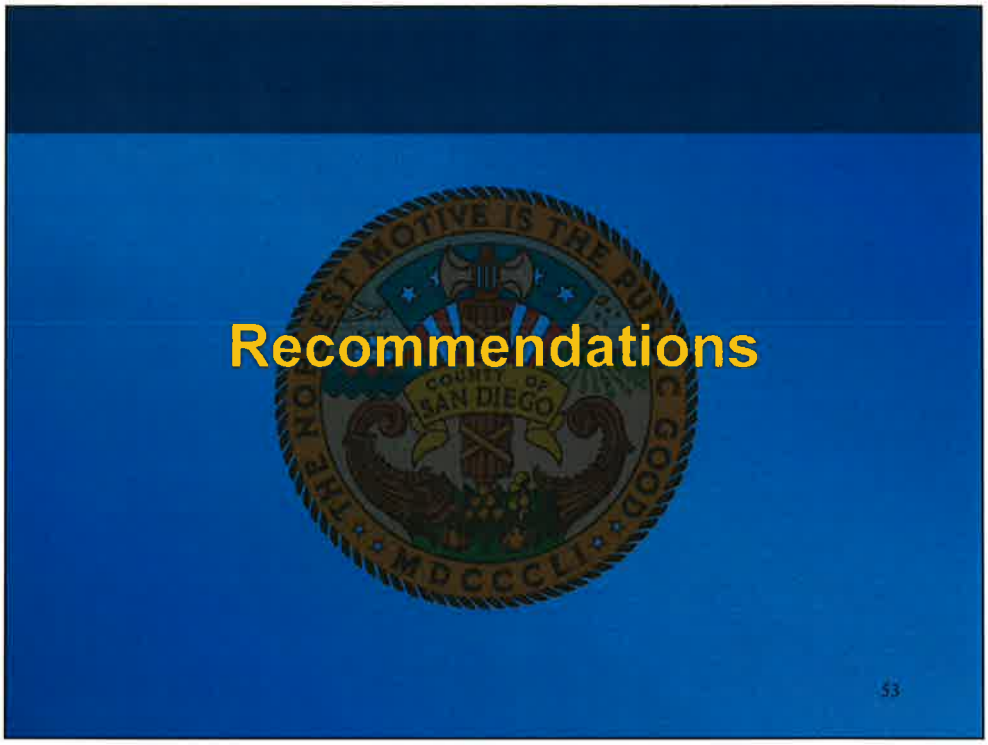
A supplementary analysis was completed focusing on the summer solstice which represents the worst case scenario for glare. The analysis concluded that a total of 110 trackers on the Rugged site and 100 trackers on the TDS site, as shown in these images in orange, were directing glare toward the identified residences. The study evaluated potential mitigation measures including modifications to panel operations, and vegetative and architectural treatment screening. The study concluded that changing panel operations is technically infeasible as the panel operations would need to be modified throughout the year based on changing sun position. Moreover, such a change would impede electricity generation at the end of the day, when demand for renewable electricity is increasing and supply is decreasing. The applicant has expressed willingness to work with affected residents to implement measures to reduce glare, including installation of landscaping or architectural treatments.

Lastly, staff analyzed the project's consistency with the Major Use Permit findings.

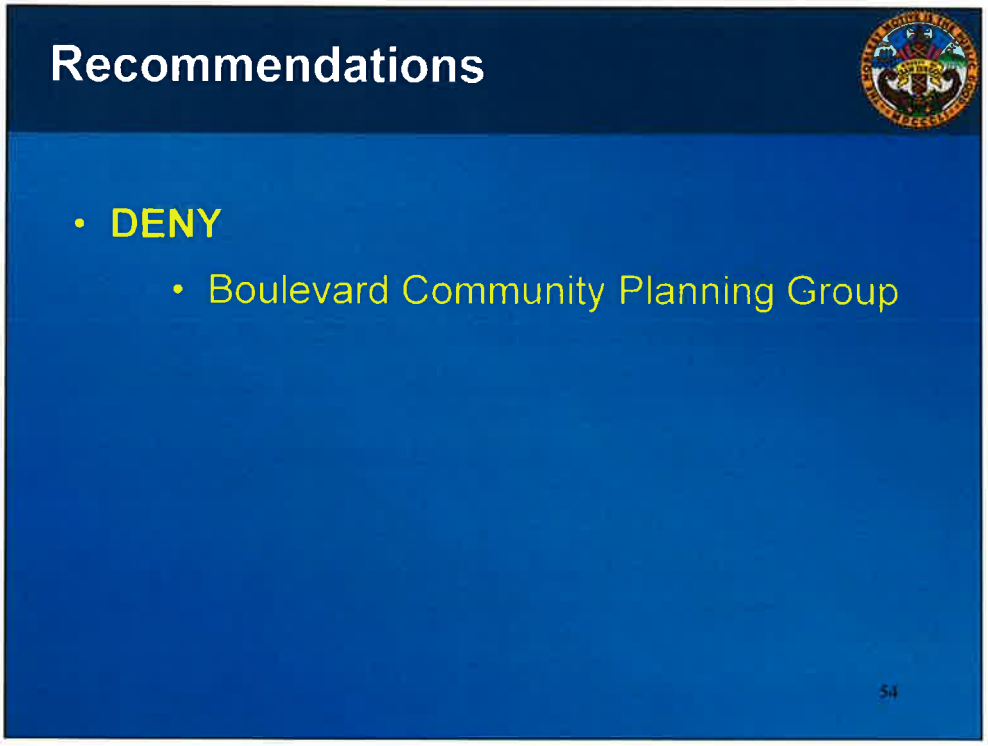


Staff has thoroughly analyzed the project's consistency with the character of the community in accordance with the Major Use Permit findings contained within the County's Zoning Ordinance. These findings aide in determining project compatibility with adjacent uses, residents, buildings or structures through an analysis of the project's location, size, design, and operating characteristics.

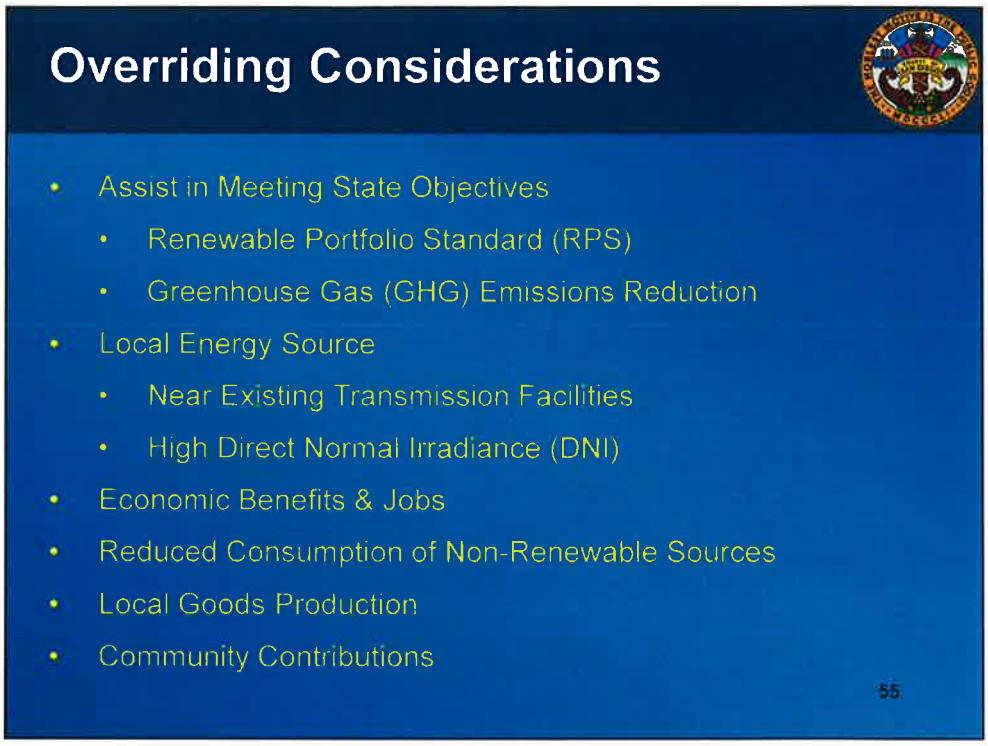
Staff has carefully considered these required findings and has determined that they can be made in support of the Rugged and TDS projects for the reasons detailed in this presentation and as further detailed in the planning report for the project.



I would now like to move to project recommendations.



Throughout the processing of the project, the Boulevard Community Planning Group has discussed and taken several actions on the project. On June 14 and August 2, 2012, the Boulevard Community Planning Group voted to recommend denial the Rugged Solar and Tierra Del Sol Solar projects due primarily to the project issues previously discussed in this presentation and in the planning report.



As previously detailed, the proposed project would result in significant and unavoidable impacts. When determining whether a project that has unavoidable impacts should be approved, the County is required to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable environmental risks.

Staff, in determining whether to recommend approval of this project, not only took into consideration the analysis as described in the planning report, but found that the project would:

Assist in achieving the state's Renewable Portfolio Standard and GHG emissions reduction objectives

Provide a local source of energy near existing transmission facilities and with high direct normal irradiance

Provide tax benefits, job benefits, and broader economic benefits for the County of San Diego

Provide both one-time and on-going contributions to the local community.

On January 16, 2015, the Planning Commission considered the Rugged Solar and Tierra Del Sol Solar projects. Chairman Norby from the County's Planning Commission is here to speak on this project.

Thank you Chairman Norby, ... Planning & Development Services concurs with the Planning Commission's recommendations and further recommends the Board also take additional and related actions including the approval of two fire and emergency services agreements, the adoption of the franchise agreement resolution of intention and the requirement that the applicant enter into a defense and indemnification agreement with the County.

This concludes our presentation. Thank you.